

Update on the Large GEM prototype @ Uva
&
 μ RWELL small prototype

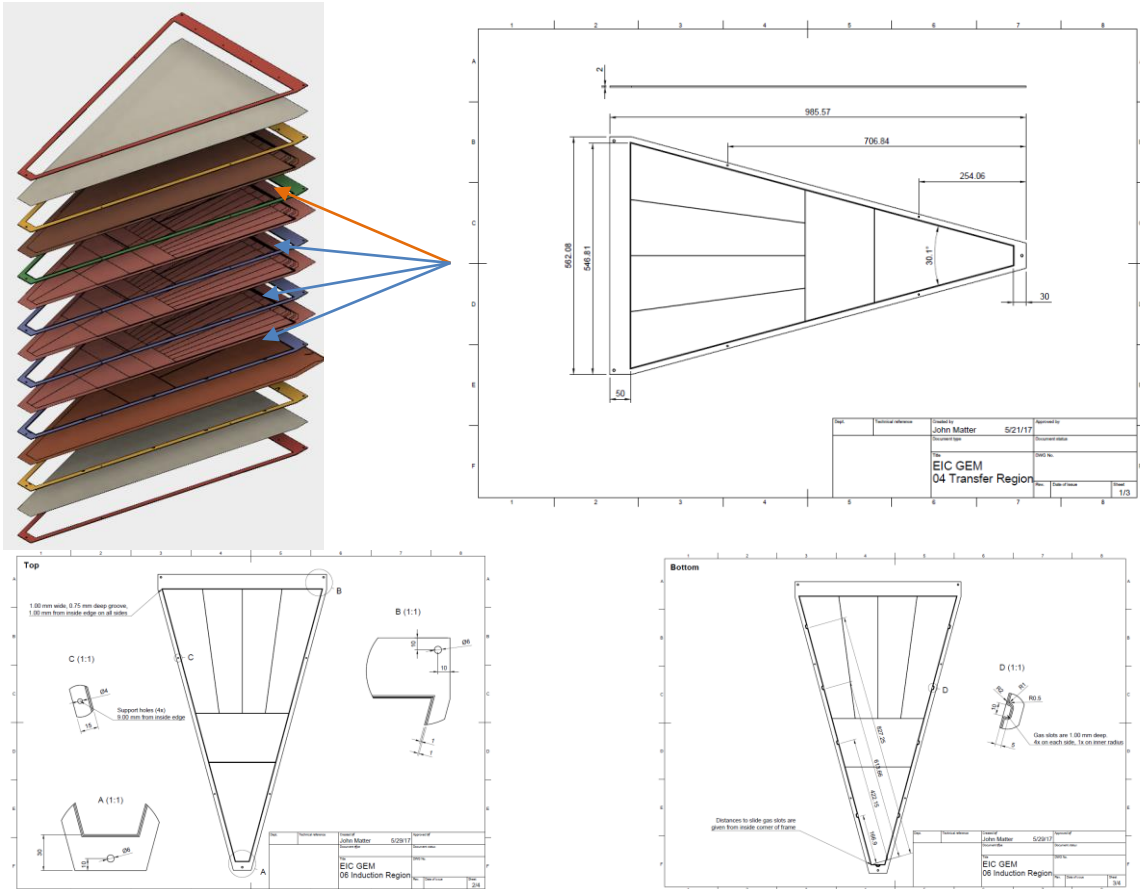
Kondo Gnanvo

EIC Weekly Meeting, May 07, 2018

2 sets of support frames for the large GEM prototype

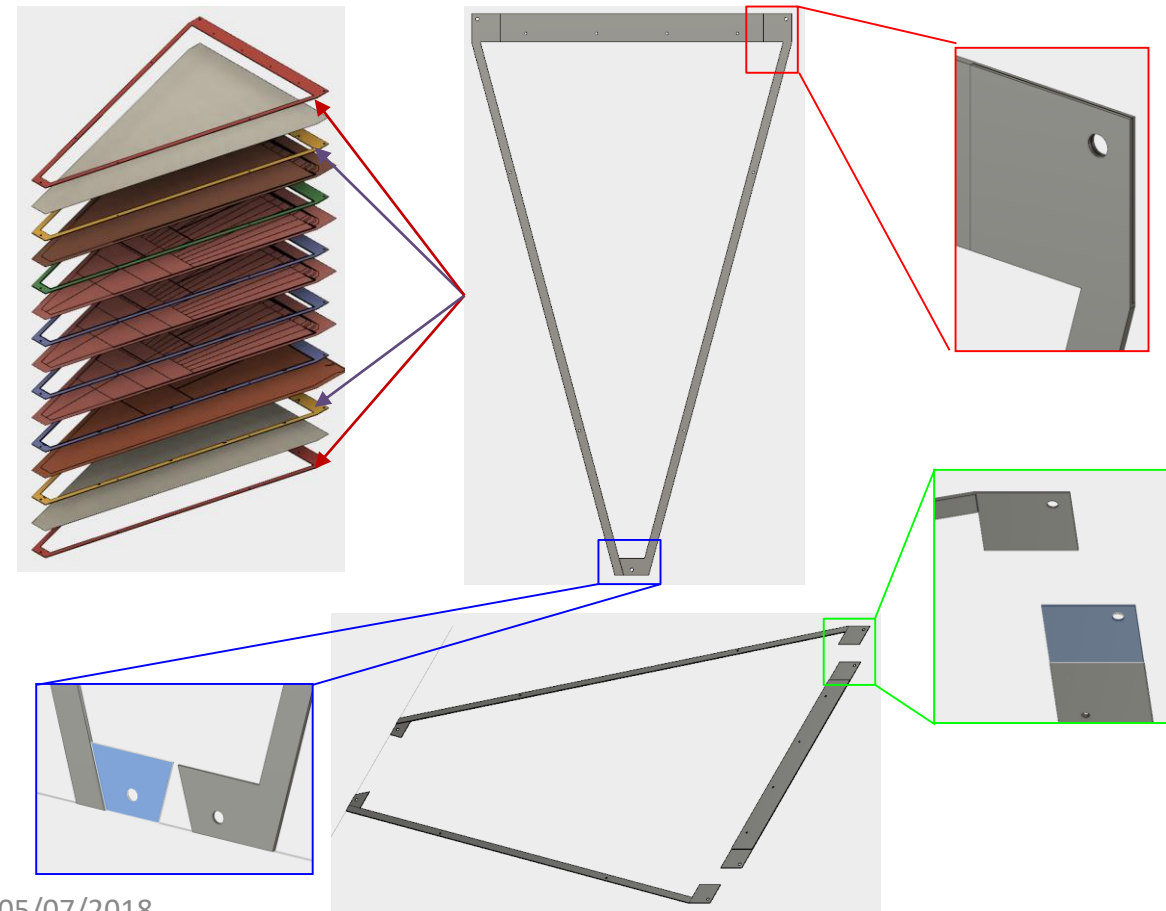
High cost inner frames for GEMs with spacer grids

- **4 Inner Frames** with 300 μm spacers grid for GEM foils
- Precision machining of **PERMAGLAS** by RESARM (Belgium)
 - ⇒ High material and machining cost
- Total cost for all 4 frames = 5.5 k\$
- Expected delivery in two weeks from today



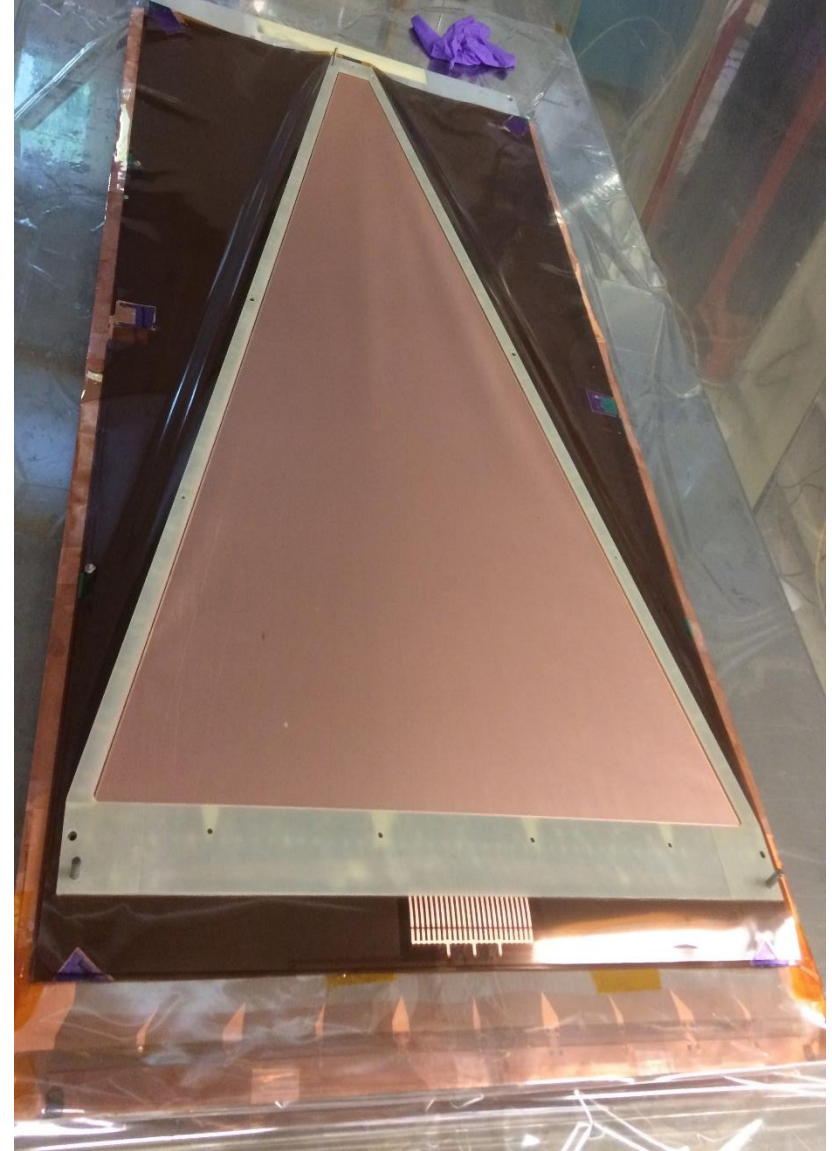
Low cost outer frames without spacer grids

- **4 Outer Frames** for gas window foils without spacers grid
- Each frame made of four **G10** pieces cut out in local UVa machine shop
 - ⇒ Low cost: all parts for 4 frames from single 36" \times 48" G10 plate
- Total cost = 92 \$ (material) + UVa machine shop labor
- All part for already produced and glued in our lab



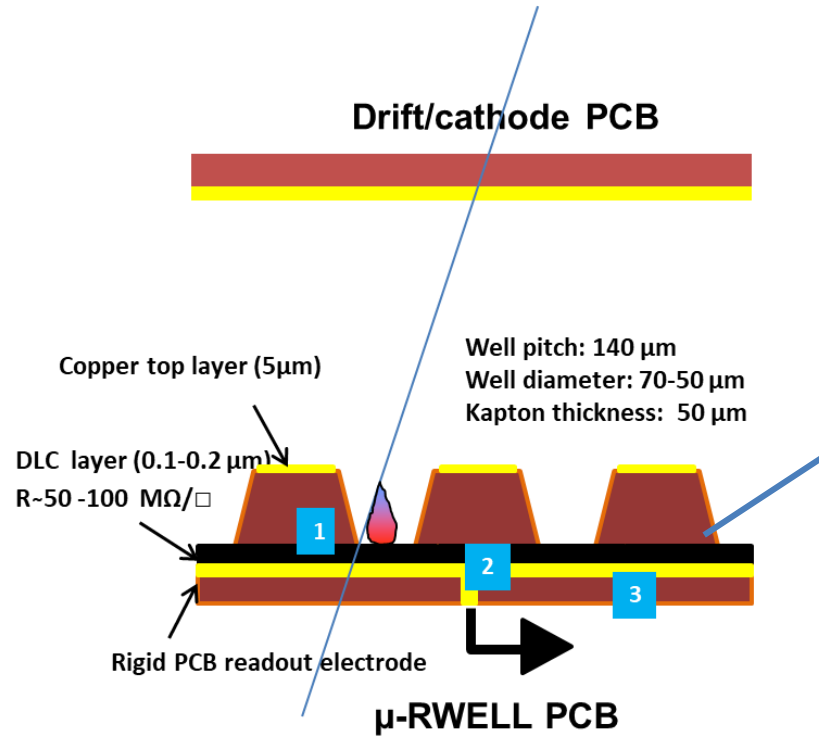
Status of the Large GEM Prototype

- ✓ Assembly in clean room is completed
- ✓ Just need to add the gas flow connectors
- ✓ HV sectors will be tested individually after and zebra connection added before we start test on cosmic



Small (10 cm × 10 cm) prototype of μ RWELL detector

- ✓ μ RWELL prototype produced by CERN with 2D “COMPASS” readout
- ✓ Going to put it together in clean room this week and test it on cosmic
- ✓ In principle, pretty simple to assemble just add the drift cathode
- ✓ Will also be tested in June FTBF test beam



G. Bencivenni et al., 2015_JINST_10_P02008

